

REMARKS

Upon entry of the present amendment, claims 1-4 and 6 will remain pending in the above-identified application and stand ready for further action on the merits. Claim 1 has been amended. Claim 5 has been cancelled, and the limitations thereof added to claim 1. No new matter is added by this amendment.

This amendment should be entered as applicants have merely combined claims 1 and 5, with claim 5 previously being pending.

Withdrawn Rejections

Applicants acknowledge with appreciation the withdrawal of the rejection under 35 USC 112 (paragraph two).

Rejection under 35 USC 103(a)

Claims 1-6 stand rejected under 35 USC 103(a) as being unpatentable over Taylor in view of Yang et al. This rejection is respectfully traversed.

In support of the rejection, the Examiner takes the position that "it would have been obvious to the skilled artisan in the art to be motivated to prefer Yang's et al ruthenium catalyzed oxidation to the ozonization of the olefin in the Taylor process in order to optimize the yield of the desired product by routine experimentation on the amount of the catalyst. This is because the skilled artisan would expect such a manipulation to be reasonable in order to increase the yield as shown in the Yang et al (see p. 4814, lines 6-16)."

In response, the limitations of claim 5 are added to claim 1.

The present invention as claimed is a process for the production of a 3,3-dimethyl-2-formylcyclopropanecarboxylic acid compound represented by the formula (2) which process comprises reacting a 3,3-dimethyl-2-(2-methyl-1-propenyl)cyclopropanecarboxylic acid compound represented by the formula (1) with a periodic acid compound in the presence of a ruthenium compound, wherein an iodic acid compound produced as a by-product in the reaction of the 3,3-dimethyl-2-(2-methyl-1-propenyl)cyclopropanecarboxylic acid compound represented by the formula (1) with the periodic acid compound is converted into and recovered as a periodic acid compound, and the recovered periodic acid compound is reused in the above reaction.

The process of the present invention is an industrially advantageous process because the 3,3-dimethyl-2-formylcyclopropanecarboxylic acid compound by the formula (2) is obtained in a good yield and, at the same time, the iodic acid compound produced as a by-product can be reused. This is specifically supported by the present specification. That is, in Example 22, the desired 3,3-dimethyl-2-formylcyclopropanecarboxylic acid compound is obtained in a yield of 87% by the process using sodium paraperiodate recovered in Example 1 (recovery rate 99%). This Example shows not only a good yield of the desired 3,3-dimethyl-2-formylcyclopropanecarboxylic acid compound, but also effective utilization of the periodic acid compound.

The cited references fail to teach or suggest the recovery of an iodic acid compound produced as a by-product as a periodic acid compound and the reuse thereof for the production of a 3,3-dimethyl-2-formylcyclopropanecarboxylic acid compound in such a reaction.

In view of the above, the rejection is without basis and should be withdrawn.

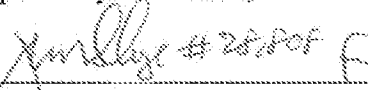
Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance clearly indicating that each of pending claims 1-4 and 6 are allowed and patentable under Title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: April 10, 2007

Respectfully submitted,

By  #28808 F

John W. Bailey

Registration No.: 32,881

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicant